Abstract of the Disclosure

An embodiment comprises a unit generating a control pulse signal by delaying a basic signal in generating a transmission pulse, and a unit performing a gate operation on a received signal using the control pulse signal. Another embodiment comprises a unit generating a control pulse signal by delaying a signal generated using a first basic signal, a second signal for phase modulation having a lower frequency than the first signal, and a pseudo-random signal generated at an intermediate frequency between the frequencies of the first and second signals, and a unit performing the gate operation.